CLAIMS

What is claimed is:

1. A method of setting up a Transaction Capabilities Application Part (TCAP) transaction in an SS7 signaling network, the method comprising the steps of:

receiving multiple application dialogues in said SS7 signaling network;

establishing at least one TCAP transaction in said SS7 signaling network;

multiplexing said multiple application dialogues in said at least one TCAP transaction; and

transporting said at least one TCAP transaction in said SS7 signaling network using a connection-oriented Signaling Connection Control Part (SCCP) connection.

2. The method according to claim 1, wherein said step of establishing a TCAP transaction includes establishing a semi-permanent TCAP transaction.

3. The method according to claim 1, wherein said multiple application dialogues are based on a Mobile Applications Part protocol.

4. The method according to claim 1, wherein a plurality of TCAP transactions are multiplexed onto one SCCP connection.

5. The method according to claim 4, wherein related TCAP transactions are multiplexed onto one SCCP connection.

6. The method according to claim 1, wherein each TCAP transaction comprises multiple TCAP messages, each TCAP message including an application dialogue protocol data unit therein.

7. The method according to claim 1, further comprising performing one global title translation for each TCAP transaction.

8. The method according to claim 1, wherein related application dialogues are multiplexed onto one TCAP transaction.

9. A server for setting up a Transaction Capabilities Application Part (TCAP) transaction in an SS7 signaling network, comprising:

a storage unit configured to store a signaling module thereon; and

a processing unit connected to said storage unit and configured to execute said signaling module, said signaling module causing said server to:

receive multiple application dialogues from said SS7 signaling network;

establish at least one TCAP transaction in said SS7 signaling network;

multiplex said multiple application dialogues in said at least one TCAP transaction; and

transport said at least one TCAP transaction in said SS7 signaling network using a connection-oriented Signaling Connection Control Part (SCCP) connection.

10. The server according to claim 9, wherein said at least one TCAP transaction established by said server includes a semi-permanent TCAP transaction.

11 The server according to claim 9, wherein said multiple application dialogues are based on a Mobile Applications Part protocol.

12. The server according to claim 9, wherein said signaling module causes said server to multiplex a plurality of TCAP transactions onto one SCCP connection.

13. The server according to claim 12, wherein said signaling module causes said server to multiplex related TCAP transactions onto one SCCP connection.

14. The server according to claim 9, wherein each TCAP transaction comprises multiple TCAP messages, each TCAP message including an application dialogue protocol data unit therein.

15. The server according to claim 9, wherein said signaling module causes said server to perform one global title translation for each TCAP transaction.

16. The server according to claim 9, wherein said signaling module causes said server to multiplex related application dialogues onto one TCAP transaction.

17. A method of setting up a Transaction Capabilities Application Part (TCAP) transaction in an SS7 signaling network, the method comprising the steps of:

receiving a plurality of application dialogues in said SS7 signaling network;

establishing a TCAP transaction for each application dialogue; and

multiplexing said TCAP transactions in a connection-oriented Signaling Connection Control Part (SCCP) connection.

18. The method according to claim 1, wherein said step of establishing a TCAP transaction includes establishing a semi-permanent TCAP transaction.

19. The method according to claim 17, wherein each TCAP transaction comprises multiple TCAP messages, each TCAP message comprising an application dialogue protocol data unit therein.

20. The method according to claim 19, wherein each SCCP connection comprises multiple SCCP messages, each SCCP message including a TCAP message therein.